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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 09/520,206
Filing Date: March 07, 2000
Appellant(s): YAEGER ET AL.

Michael R. Reinemann (Reg. No. 38,280)
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed February 23, 2006 appealing from the Office action mailed September 26, 2005.

(1) Real Party in Interest

A statement identifying the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

A statement identifying the related appeals and interferences which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief.

(3) Status of Claims

The statement of the status of the claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Invention

The summary of invention contained in the brief is correct.

(6) Issues

The appellant's statement of the issues in the brief is correct.

(7) Claims Appealed

The copy of the appealed claims contained in the Appendix of Claims to the brief is correct.

(8) Prior Art of Record

5,517,578	Altman et al.	5-1996

5,682,439 Beernink et al. 10-1997

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1-2, 4-18, 20-29, and 31-47 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Altman U.S. Patent No. 5,517,578 and Beernink U.S. Patent No. 5,682,439.

Referring to claim 1, Altman teaches a system for managing ink information in a computer system (Abstract) having a pen-based input tablet (FIG. 1, element 16), the system comprising:

A pen driver (program routine) (column 3, lines 60-67) coupled to the pen-based input/display table and configured to collect and organize the ink information entered at the pen-based input tablet info ink strokes (column 4, lines 1-10);

An ink memory area organized into one or more ink phrase data structures (memory blocks to store ink strokes) (column 4, lines 14-19); and

An ink manager (PenPoint OS) (FIG. 1, element 24) coupled to the pen driver for receiving the ink strokes (column 4, lines 1-11), the ink manager having an ink phrase termination engine configured to examine the ink information collected by the pen driver and, upon detecting the occurrence of an ink phrase termination event (ending indication) (column 8, lines 55-67), to identify a respective end of an ink phrase to the ink manager (column 16, lines 5-12),

Whereby the ink information (stroke parsing routines and writing routines translate ink information from ink strokes) entered at the pen-based input table is associated with a client applicant (Operating System or User Interface routines/module/program/application) (column 4, lines 1-15), and ink manager stores the ink strokes (FIG. 4, element 71) received prior to the ink phrase termination event (Altman stores new stroke into a buffer before determine the bounds/the ending of the stroke in the store ink phrase data structure) (FIG. 4, element 72) in a selected ink phrase data structure (column 4, lines 14-19).

Altman does not explicitly teach the response in receiving from the client application a reference context affiliated with the un-recognized ink strokes of the ink phrase, associates the reference context with the ink strokes. Beernink further teaches the system wherein the ink manager (software which processes ink words) (column 10, lines 12-13), in response to receiving from the client application a reference context (pop-up corrector software/module) (column 3, lines 66-67) affiliated with the un-recognized ink strokes (unrecognized character) (column 12, lines 65-67 through column 13, lines 1-5) of the ink phrase, associates the reference context with the ink strokes (FIGs. 5-7). Modifying Altman's method of managing ink information according to Beernink would able to provide list of potential ink strokes so that users will be able to correct

the un-recognize ink stroke for the pen-ware system. This would improve processing and therefore, it would have been obvious to one of the ordinary skill in the art to modify Altman according to Beernink.

Regarding claim 2, Altman teaches the system wherein the ink manager, in response to the occurrence of an ink phrase termination event, is configured to pass the recognized ink strokes of the respective ink phrase to the client application (column 4, lines 1-15). However, Altman does not teach the ink manager that configured to pass the un-recognized ink strokes of the respective ink phrase to the client application. Beernink teaches the concept wherein the manager (Palm System) (column 4, lines 61-65) configured to pass the un-recognized ink strokes of the respective ink phrase to the client application (Graphical User Interface software or tablet display) (column 5, lines 66-67) (FIG. 5). Modifying Altman's method of managing ink information according to Beernink would able to predict and able to correct the un-recognize ink stroke for the pen-ware system. This would improve processing and therefore, it would have been obvious to one of the ordinary skill in the art to modify Altman according to Beernink.

Referring to claim 4, Beernink also teaches the system wherein the ink manager associates the reference context with the ink-recognized ink strokes by appending the reference context with the selected ink phrase data structure (FIG. 9, element 262).

For claim 5, Altman continue to teaches the system wherein the ink phrase termination engine is configured to initiate a time-out of each ink stroke (time duration for each ink stroke) (column 7, lines 40-43) and further wherein the termination engine identifies the occurrence of an ink phrase termination engine identifies the occurrence of an ink phrase termination event (as disclosed in claim 1) when the time-out expires before the next sequential ink stroke is detected.

And claim 6, Altman also teaches the system wherein the time-out has a value that is settable (predetermined amount of time) by a user of the computer system (column 5, line 17).

Regarding claim 7, Altman teaches the system wherein the pen-based input table has a surface and the ink information generated by the tablet includes out-of-proximity (proximity) data corresponding to the pen being lifted above the surface of the tablet, and further wherein the termination engine detects the occurrence of an ink phrase termination even (disclosed in claim 1) upon detecting out-of-proximity data from the tablet (column 6, lines 41-52).

Regarding claim 8, Beernink continue to teaching of the system comprising:

One or more handwriting recognition engines (column 10, lines 8-16) for generating hypotheses (guesses) based on the ink information entered at the pen-based table; and

A handwriting recognition manager coupled to both the ink manager and the one or more handwriting recognition engines, the handwriting recognition manager configured and arranged to coordinate operation of one or more handwriting recognition engines (basically is a broad description of the architecture of the described system) (FIG. 1), wherein

The ink strokes received at the ink manager are passed to the handwriting recognition manager (column 10, lines 10-13), and

The ink manager notifies the handwriting recognition manager of the occurrence of each ink phrase termination event and, in response, the handwriting recognition manager directs a selected handwriting recognition engine to generate one ore more hypotheses for the ink strokes corresponding the respective ink phrase (column 10, lines 8-16 and 23-30). Modifying Altman's method of managing ink information according to Beernink would provide numerous guesses for the user to select the correct writing stroke from the un-recognize ink stroke for the pen-ware

system. This would improve processing and therefore, it would have been obvious to one of the ordinary skill in the art to modify Altman according to Beernink.

Regarding claim 9, Altman further teaches the system wherein the handwriting recognition manager in cooperation with the selected handwriting recognition engine employs a word segmentation model to the ink strokes as they are received by the ink manager and, in response to determining that a given ink stroke represents a new word column 2, line 52), is permitted to issue an ink phrase termination signal to the ink manager (column 4, line 53 and column 6, line 31-32).

Referring to claim 10, Altman also teaches the system wherein

The client application is configured to define at least one data entry field for display on the table and to establish corresponding boundary (bounding box) coordinates (column 3, lines 22-24 and 39-41) for the at least one data entry field, and

The termination engine identifies the occurrence of an ink phrase termination event when an ink stroke or portion thereof is outside of the boundary coordinates for the at lease one data entry field (column 7, lines 25-30 and column 8, lines 28-36).

Regarding claim 11, Beernink further teaches the system wherein the one or more hypotheses are provided to the client application (column 9, lines 25-50). Modifying Altman's method of managing ink information according to Beernink would allow the user to use the client application to process and correct the un-recognize ink stroke for the pen-ware system. This would improve processing and therefore, it would have been obvious to one of the ordinary skill in the art to modify Altman according to Beernink.

For claim 12, Beernink further discloses the system wherein the ink manager in response to receive from the client application a reference context (column 5, lines 55-60) affiliated with the un-recognized ink strokes of the ink phrase, associates the reference context with the ink strokes (FIG. 5 and FIG. 6), and

In response to a request by the client application, returns the affiliated reference context to the client application together with the one or more hypotheses (FIGs. 5-6).

Referring to claim 13, Beernink teaches the system in response to receiving an indication that the client application has consumed the un-recognized ink strokes, the ink manager directs the handwriting recognition manager not to generate (Beernink teaches the popup corrector can be select so show the list of hypotheses. Therefore if the popup correct is not selected, then there is no generation of hypotheses) one or more hypotheses for the ink strokes (column 10, lines 17-19).

Regarding claim 14, Beernink teaches the system wherein in response to receiving the un-recognized ink strokes, the client application establishes a corresponding recognition context for the ink strokes, and the handwriting recognition manager receives the recognition context and directs the selected handwriting recognition engine to utilize the recognition context in generating the one or more hypotheses (FIGs. 5-6).

For claim 15, Beernink teaches the system wherein the one or more hypotheses generated by the selected handwriting recognition engine utilizing the recognition context from the client application are provided to the client applicant (column 5, lines 55-60 and FIGs. 5-6).

Regarding claim 16, Altman teaches a method for managing ink information (Abstract) in a computer system having a pen-based input tablet (FIG. 1, element 16) that may include an

integrated display (FIG. 1, element 14) for generating ink information as a pen is moved across the tablet, the method comprising the steps of:

Receiving the ink information generated by the input tablet (FIG. 1, element 16);

Identifying the pen is lifted from the tablet so as to organize the ink information into corresponding ink strokes (column 6, lines 45-52);

Organizing the ink strokes into one or more ink phrases (column 6, lines 53-63) as defined by one or more ink phrase termination (ending points) events (column 16, line 5); and

In response to receiving a reference context from a client application affiliated with the un-recognized ink strokes of the ink phrase, associating the reference context with the ink strokes (please refer back to the teaching and explanation of claim 1).

Referring to claim 17, Altman teaches the step of organizing comprises the steps of:

Examining the ink information to determine whether an ink phrase termination (leave the proximity) even has occurred (column 6, lines 45-52); and

In response to the occurrence of an ink phrase termination even, segregating the ink strokes received (gathering ink strokes) (FIG. 4A, element 71) prior to the termination event (bounds determination or ending points) in a designated ink phrase data structure.

For claims 18 and 20, please refer back to claims 1 and 2 respectively for the explanation.

Referring to claim 21, please refer to claims 8 and 14 for the explanation.

For claim 22, please refer back to claim 7 for further explanation.

Regarding claim 23, please refer back to claims 16 and 10 respectively for the explanation. In addition, Altman teaches the comparing the ink information from the input tablet with the bounding coordinates of the one or more data entry fields (column 11, lines 22-28).

For claims 24-26, please refer back to claims 9, 5, and 7 respectively for the explanation.

For claim 27, please refer back to claims 1, 16 and 17 for the explanation. Also, Altman teaches a computer readable medium (FIG. 1, element 30) containing executable program instructions (column 3, lines 60-64) to perform the claimed limitation.

Referring to claim 28, please refer back to claim 18.

For claim 29, Beernink also teaches a method in response to receiving an indication that the client application has consumed the un-recognized ink strokes (column 10, lines 10-15), blocking recognition of the ink strokes (column 13, lines 1-5).

For claims 31-32, please refer back to claims 20-21 respectively for the explanations.

For claim 33, please refer back to claims 19 and 21 for the explanation.

For claim 34, please refer back to claims 27 and 21 respectively to for the explanation.

For claims 35-36, please refer back to claims 25 and 26 respectively for the explanation.

For claims 37, please refer back to claim 1 for the teaching and explanation.

As to claim 38, Altman teaches the method wherein the reference context is either a tag generated by the client application for client-based identification, or a pointer to a data structure containing client-related information (PenPoint OS and User Interface) (column 4, lines 1-18).

For claim 39, please refer back to claims 1-2 for the teaching and the explanation.

For claims 40-47, please refer back to claims 4, 8, 1, 17, 38, 2, 13, 21 and 12 respectively for the teaching and explanation.

(10) Response to Argument

(A) The following discussion relates to the rejection of claims 1-2, 4-18, 20-29, and 31-47 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Altman U.S. Patent No. 5,517,578 and Beernink U.S. Patent No. 5,682,439.

1. Appellant's argument ---- Regarding claim 1, Appellant argues (page 4 of the Appeal Brief) that the combination of Altman U.S. Patent No. 5,517,578 ("Altman") and Beernink U.S. Patent No. 5,682,439 ("Beernink") fail to teach or suggest the detecting of the occurrence of ink phrase termination events. Specifically, the Appellant disagrees (bottom of page 7 of the Appeal Brief) that Altman fails to teach an ink phrase termination engine.

1. Examiner's response ---- The Examiner respectfully disagree with the Appellant's statement. As defined in the specification, ink phrase termination engine "monitors proximity information acquired by the pen-based input device, and issues an ink phrase termination event when the pen is lifted out-of-proximity from the surface of the input device" (page 5, lines 7-9). In comparing to this definition, Altman Reference discloses a concept of determining the bounds/ lifted out-of-proximity/occurrence of each stroke (FIG. 4A, element 72 and element 77; FIG. 7A, element 142 and element 145; column 4, lines 3-4; column 5, lines 15-20; column 6, lines 53-67 and other locations throughout the Reference). Thus, clearly Altman Reference discloses an ink phrase termination event. Therefore, Altman Reference also teaches an ink manager which includes an ink phrase termination engine since the specification defines that an ink manager includes an ink phrase termination engine which uses to detects the occurrence of an ink phrase termination event (page 4, lines 5-15).

2. Appellant's argument ---- Regarding claim 16, the Appellant argues (page 4 and page 12-13 of the Appeal Brief) that the combination of Altman U.S. Patent No. 5,517,578

("Altman") and Beernink U.S. Patent No. 5,682,439 ("Beernink") fail to teach or suggest the organizing ink strokes into ink phrases.

2. Examiner's response ---- The Examiner respectfully disagree with the Appellant's statement. Due to this broadly claimed limitation, one skilled in the art can clearly interpret this as the gathering of ink strokes into an ink groups or organize ink strokes into ink groups. Thus, Altman discloses the adding, dividing, and associating of ink stroke into a chained group (column 6, lines 53-67) can be reasonably interpreted as "organizing ink strokes into ink phrases" as claimed.

3. Appellant's argument ---- The Appellant argues (page 4 and page 9 of the Appeal Brief) that the combination of Altman U.S. Patent No. 5,517,578 ("Altman") and Beernink U.S. Patent No. 5,682,439 ("Beernink") fail to teach or suggest the associating an un-recognized ink phrase with a client applicant's reference context. The Applicant also specifically pointed out that Beernink display recognition results (Beernink's pop-up corrector 168) is not a reference context associated with un-recognized ink strokes.

3. Examiner's response ---- The Examiner respectfully disagree with the Appellant's statement. The specification (page 15, lines 6-8) broadly defines reference context as "The REF CON **may simply be** a tag generated by the application for internally identifying **or** providing other information regarding the ink phrase". (Emphasis added). Clearly, there is no special definition for this terminology, thus results a reasonable broad interpretation of the language. In addition, Beernink clearly teaches the un-recognized ink strokes (FIG. 5, element 172) and providing a list of alternatives/possibilities ink strokes for the operator to choose from (pop-up corrector) (FIG. 5, element 168). In fact, the list of possible ink strokes of operator to select from is not yet a recognized ink strokes because the software still unsure of what the is correct ink stroke to be selected and thus waiting for the operator/user to choose from. As disclosed by Beernink (column 10, lines 17-30) and clearly admitted by the Applicant (page 11, first

paragraph of the Appeal Brief) that the pop-up corrector only provides an alternate list providing users with possible character strings that the software believes to be close matches to the ink word/ink phrase. Clearly, this alternate list is not recognized yet until a single character string is selected from the user. Therefore, Beernink clearly teaches the concept of associating an un-recognized in phrase with the client application's reference context.

For the above reasons, it is believed that the rejections should be sustained.

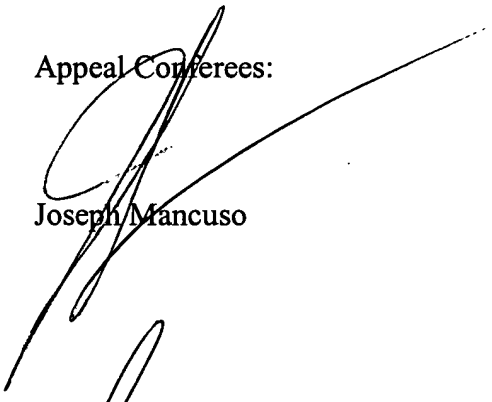
Respectfully submitted

Brian Le

Examiner

March 28, 2006

Appeal Conferees:



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